



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,974	09/30/2003	Toshio Kobayashi	SHX 342	7680
23581	7590	11/02/2004	EXAMINER	
KOLISCH HARTWELL, P.C. 520 S.W. YAMHILL STREET SUITE 200 PORTLAND, OR 97204			LEE, WILSON	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/676,974

Applicant(s)

KOBAYASHI ET AL

Examiner

Wilson Lee

Art Unit

2821

*pu*

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **Claim Rejections – 35 U.S.C. 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 1, line 10, “the stationary discharge” lacks antecedent basis. Claim 1 does not introduce any stationary discharge.

Regarding Claim 4, line 4, “said trigger capacitors” lacks antecedent basis. Its preceding claims fail to disclose a plurality of trigger capacitors.

Regarding Claim 7, line 3, “the capacitors” lacks antecedent basis. Its preceding claims fail to disclose a plurality of capacitors.

Regarding Claim 8, line 2, “capacitors” lacks antecedent basis. Its preceding claims fail to disclose a plurality of capacitors.

Claims 2-10 are vague by virtue of their dependency on claim 1.

Regarding Claim 11, lines 7, 8, “the input” and “output” lack antecedent basis. Line 11, “the discharge” lacks antecedent basis. Line 13, “the stationary output voltage” lacks antecedent basis. Line 14, “the stationary discharge” lacks antecedent basis. Claim 11 does not introduce any stationary discharge. Line 15, “said discharge source” lacks antecedent basis.

Regarding Claim 12, line 3, “the cathode” lacks antecedent basis.

Claims 12-16 are vague by virtue of their dependency on claim 11.

### **Claim Rejections – 35 U.S.C. 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-3, as best understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Blom et al. (6,437,994).

Regarding Claim 1, Blom discloses a discharge power supply apparatus for supplying a direct current voltage to discharge load and discharging the same, comprising:

- an inverter circuit (5, 6) that converts direct current voltage (2) to alternating current voltage,
  - a full-wave rectifier circuit (12) that has a plurality of diodes(13-16) and rectifies an alternating current voltage generated by said inverter circuit;
- and

- a trigger capacitor (17) connected in parallel to a portion of said diodes (13-16) of said full-wave rectifier circuit,
- wherein at the start of the discharge of said discharge load (at terminals 20, 21) (See Figure 1b, Col. 2, lines 34-38), a trigger voltage (e.g. the effective voltage, or ignition voltage-*inherent*) that is higher than a stationary output voltage (e.g. resonant voltage V, or nominal voltage-*inherent*) is supplied to the discharge load, and after the start of the stationary discharge (See Col. 2, line 49 to Col. 3, line 46) , the direct current voltage output by said full-wave rectifier circuit (12) is supplied to said discharge load.

Regarding Claim 2, Blom discloses that said full-wave rectifier circuit (12) is a full-bridge rectifier circuit including two serially connected pairs of diodes (13, 15), and the trigger capacitor (17) is connected in parallel to any one of the pairs of said diodes (13-16).

Regarding Claim 3, Blom discloses a transformer (10, 11) having a primary (10) winding, to which the alternating current voltage output by said inverter circuit (5, 6) is supplied, and a secondary winding (11) (See Figure 1a).

#### **Allowable subject matter**

Claims 5, 6, 9, 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 11-16 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 4, 7, 8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamashita et al. (5,422,548) discloses a cut-off vehicular discharge lamp. Daub (5,103,143) discloses an apparatus for starting a high pressure gas discharge lamp for vehicles.

### **Correspondence**

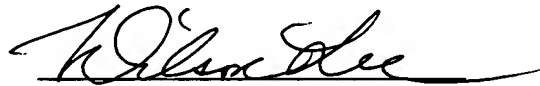
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (571) 272-1824.

Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The official fax number is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

Art Unit: 2821

more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Wilson Lee", with a long horizontal flourish extending to the right.

Wilson Lee  
Primary Examiner  
U.S. Patent & Trademark Office

11/1/04